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IMPACT OF FEDERAL GOVERNMENT DEFICIT BUDGET FINANCING ON ECONOMIC GROWTH IN NIGERIA

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Abstract

The study examined the Impact of federal government budget deficit financing on economic growth in Nigeria for the period of 1987-2022. The study utilized secondary sources of data extracted from the Central Bank of Nigeria annual statistics bulletin 2022, The study undertook unit root test employing augmented Dickey-Fuller (ADF) method to determine whether the variables are stationary or not and the result shows that the variables are all stationary at 1(I). The study employed co-integration test and the results shows that there is evidence of long run relationship among variables; the study employed the generalized linear model (GLM) model for estimation. The findings showed that all the three variables multilateral borrowing (MUB), bilateral borrowing (BIB), and official development assistance (ODA) has positive and mixed statistically significant and insignificant impact on gross domestic product in Nigeria during the period under study. Therefore, the study concluded that budget deficit financing generally has positive impact on gross domestic product but statistically mixed significance influence on gross domestic product in Nigeria during the period of the study. The study recommends that government should be prudent to consider strategic external and domestic borrowing. However, caution should be exercised to prevent overreliance on external debt and the associated risks. It is essential to carefully assess borrowing terms, negotiate favourable interest rates, and maintain a manageable debt-to-GDP ratio. Additionally borrowing should be directed towards productive investments that generate long-term economic benefits.

Keywords: Budget Deficit, Multilateral Borrowing, Bilateral Borrowing, Official Development Assistance, Economic growth

1. Introduction

Overtime, there has been a strong debate on the impact of federal government deficit budget financing on economic stabilization and the promotion of economic growth. Federal government budget remains important instrument utilized in the process of development. It plays a pivotal role in the functioning of any economy at almost all stages of growth and development. Most developing and developed countries today use federal government budget to improve income distribution, direct the allocation of resources in desired areas, and influence the composition of national income (Assi et al, 2019; Vtyurina, 2020; World Bank, 2008). In developing countries for instance, the variation in federal government budget pattern is not only projected to guarantee stabilization but also to spur economic growth expand employment opportunities (World Bank, 2015).

Many developing countries undertake deficit budget financing of achieving means macroeconomic objectives. In conventional settings, deficit financing is seen as a strategy which is mostly undertaken to address macroeconomic quagmires like depression and low output (Anyanwu, 1997). According to Adeleke and Abdulsalam (2016), such deliberate gap existed with the intention of promoting economic activity in Nigeria. If fiscal expenditures are directed towards the growth of real sectors of the economy in terms of infrastructural and human capital development, they would be capable of increasing output to the desired direction hence increasing average living standard of the people. Contrarily, deficit financing still appears to be a strategy that has the tendency of aggravating inflationary pressure and crowding out private sector investments, and thereby worsening unemployment problems (Anyanwu, 1997).

When the government has a deficit budget,

there is the need to provide funds for the excess expenditure to bridge the gap between its expenditure and revenue. Budget deficits are usually financed using external and internal sources. Budget deficit can be financed by printing money, running down foreign exchange reserves, borrowing from external and domestic markets. Each of these sources has its own implications on the macroeconomic variables of the concerned economy. With respect to the effects of deficit budget financing, Fasoranti and Amasoma (2013); Umaru and Gatawa (2014) have observed that the manner in which deficit budgets are financed is a major determinant of its impact on the economy. It is argued that the use of the external sources create a deficit in the current account resulting in exchange rate appreciation and disequilibrium in the balance of payments, while internal sources result in high interest rates and a decrease in private investment (Osinubi & Olaleru, 2006; Fasoranti & Amasoma, 2013). The impact of domestic financing of deficit is explained by the crowding out theorem which is based on the argument that increases in government expenditure generally leads to an inefficient allocation of society's resources by starving more efficient private investors of investment funds. In essence, government spending essentially "crowds out private investment." In this regard, Ojong and Owui (2013) observed that the continuous budget deficit and deficit financing in the economy through the central banks sometimes results in inflationary pressures by creating excess liquidity in merchant and commercial banks as a result of the existence of excess reserves.

On one hand, deficit budgeting is believed to trigger high tax rates, which can decrease productivity and deter private investment. Neoclassical economists stated that budget deficit crowds-out private investment through its impact on interest rate and other variables which invariably resulted to negative impact on economic growth In a country like Nigeria where fiscal operation of the government is characterized by huge recurrent spending (such as debt servicing, national assembly administration, maintenance, pension, and gratuities etc) which has translated into prolong budget deficit, obviously has serious implication macroeconomic aggregates particularly the national output (Umaru & Gatawa, 2014).

On the other, deficit spending is assumed to complement business investment and stimulate economic productivity. Keynesian economists stated that budget deficit crowds-in private investment through its impact on macroeconomic variables leading to positive impact on economic growth Oluba (2008) asserted that Nigeria has been addicted to deficit budget over the years, and that the difficulty of timely adjustment in public expenditure levels to changes in resource profiles of government is still posing a serious problem to fiscal policy planning and management in Nigeria. The need for adequate public expenditure management has, therefore, become paramount particularly at this period when various arms of government and even the private sector are experiencing severe financial constraints. To reduce the deficit now means imposing austerity programmmes that may hurt current GDP, whereas, expanding debt indefinitely means a higher percentage of spending in the future goes to servicing the debt, which could result in higher taxes. The debate about the effects of government budget deficit on economic growth remains unsettled.

2. Literature Review

2.1 Conceptual and Theoretical Review

In Economics, the term 'budget deficit' is coined from the basic principle of expenses exceeding the revenues. This is a macroeconomic policy; hence the budget deficit concerns the economy as a whole and not any specific business. budget deficit A when government expenses exceed revenue. Many people use it as an indicator of the financial health of a country. It is a term more commonly used to refer to excess government spending over receipts. The following are the types of budget deficit and the factor which causes the deficit is also indicated side to it. (i) Revenue deficit = Total revenue expenditure - Total revenue receipts, (ii) Fiscal deficit = Total expenditure – Total receipts, excluding borrowings, (iii) Primary Deficit: The fiscal deficit when get reduced by the payment of interest, (iv) Effective Revenue Deficit: The revenue deficit when it gets reduced by the nonpayment of grants which is required for the creation of the capital assets, and (v) Monetized Fiscal Deficit: This part of the fiscal deficit is being later covered up by domestic borrowing (Barone, 2023).

The formula for calculating deficit budget is: Government Budget Deficit = Government total Expenditure (including external debt service payment)— Government total Revenue(including borrowing). The formula above means that the greater the government spending and the lower the tax revenues, the greater the deficit. In contrast, the lower the government spending and the greater the tax revenues, the lower the deficit will be. Government revenue includes corporate taxes, personal taxes, and other receipts, borrowing (from internal sources and external sources), sales of government properties, whereas government expenditure includes expenses on healthcare, defence, energy, payment of grants to other nations, payment of interest on loans (Lauren, 2023).

The concept of economic growth is associated with the growth in population, resources development, technological advancement and increasing capital formation. Economic growth can be defined as the increase in gross domestic product and per capita income of the country (Investopedia, 2018). Sources of economic growth have been the subject of an old debate in empirical macroeconomic. While numerous studies have been devoted to physical, capital investment, and technological change (Solow, 1956), to foreign direct investment (De Mello, 1999), to openness of the economy, to investment in human capital (Schultz, 1980), to research and development (Romer, 1986) as a source of economic growth, relatively little attention has been accorded to workers' remittances flows as a potential source of economic growth in developing countries.

Anyiwe and Oziegbe (2020) opined that economic growth connotes increase in outputs in various sectors, national product, and national income, improved level of technology, health, education and urbanization. In addition, economic growth refers to as a long term rise in its capacity to supply increasingly diverse economic goods to its population. It is also a process by which the productive capacity of the economy is increased over time to bring about rising level of national output and income. On the other hand, economic growth is a long term process wherein the substantial and sustained rise in real national income. total population and real per capita income takes place. In addition, economic growth is the expansion of the system in one or more dimensions without a change in its structure. Thus, economic growth is related to a quantitative, sustained increase in the country's per capita output or income accompanied by expansion in its labour force, consumption, capital and volume of trade (Ukwueze, 2018).

The study was anchored on the Keynesian view of the efficacy of deficit budget in economic growth. In the Keynesian model it is assumed that the substitution of a budget deficit for current taxation leads to an expansion of aggregate consumer demand. In other

words, desired private saving rises by less than the tax cut, so that desired national saving declines. In a closed economy, the expected real interest rate would have to rise to restore equality between desired national saving and investment demand. The higher real interest rate crowds out investment, which shows up in the long run as a smaller stock of productive capital. Therefore in the language of Shaw (1987) the public debt is an intergenerational burden that will lead to a smaller stock of capital, for future generations.

In an open economy, government deficit budget would have negligible effects on the real interest rate in international capital markets. Therefore, in the standard analysis, the home country's decision to substitute a budget deficit for current taxes leads mainly to increased borrowing from abroad, rather than to a higher real interest rate. That is budget deficits lead to current account deficits. Expected real interest rates rise for the home country only if it is large enough to influence world markets or if the increased national debt induces foreign lenders to demand higher expected returns on this country's obligations. In any event, there is a weaker tendency for a country's budget deficit financing to crowd out its domestic investment in the short-run and its stock of capital in the long-run.

2.2 Empirical Review

Navaratnam and Mayandy (2016) examined the impact of government deficit budget financing on economic growth in some selected South Asian countries, namely, Bangladesh, India, Nepal, Pakistan and Sri Lanka, using time series annual data over the period 1980–2014. Their study employed the econometric techniques of co-integration and Granger causality test to examine the dynamic relationship among the selected variables. The results from their study confirmed that the government deficit budget has a negative impact on economic growth in the South Asian countries considered in this study except Nepal, which confirmed the positive impact.

Nwaeke and Korgbeelo (2016) provided empirical evidence on the relationship between budget deficit and selected macroeconomic variables in Nigeria using annual time-series data from 1981-2013 obtained from central Bank of Nigeria (CBN) statistical Bulletin for 2013. The ordinary least squares (OLS) method of the multiple regressions analysis was used to estimate the model. The study examined the sources of budget deficits and their impact on the selected variables. Thus,

the study identifies External loans (EXT), Domestic Banking System (DBS), Non-Bank Public (NBP) and Other Sources (OS) as the sources of budget deficit in Nigeria. The effect of budget deficits caused by these sources was examined on economic growth (proxied by real GDP; Inflation Rate (INFR) and Unemployment Rate (UNPR). The study reported that budget deficits caused by external loans have insignificant negative influence on economic growth while deficits caused by domestic sources (e.g. DBS and NBP) stimulate economic growth in Nigeria.

Lucky and Godday (2017)empirically examined the nexus between the deficit financing structure and the growth performance of the Nigerian economy for the period 1990-2015 using simple and multiple regression analyses. The variables used in the analysis include gross domestic product, deficit financing, external debt and total debt. The result of the simple regression total deficit financing has a positive and significant impact on gross domestic product in Nigeria. Similarly, the results of the multiple regression analysis revealed that whereas the external debt is negative and significant to economic growth in Nigeria. Therefore, the study recommended that Nigeria should pursue domestic deficit financing as against its external deficit financing counterpart. Odubuasi, Uzoka and Anichebe (2018) analysed the effect of deficit financing on the economic growth of Nigeria from 1981 to 2017 using Granger Causality and Johansen Co-integration estimation technique. The study revealed that deficit financing and government capital expenditure have positive on Nigeria's economic growth while external debt service had no significant impact on economic growth. Inna and Viktoriia (2018) investigated the nexus between deficit financing and economic growth in emerging economies between 2006 and 2016. The study made use of ARDL model and correlation analysis. The study revealed that deficit financing had no impact on the economic growth of the countries that were examined.

Obiora and Nkechukwu (2018) examined the impact of 'deficit financing and economic growth in Nigeria' using regression model to establish the relationship between deficit financing and Nigerian economic growth. The findings of the study revealed that there is a significant and positive relationship between deficit financing, personal income tax and Nigerian economic growth. Hango (2019) analysed the effect of deficit financing dynamics on economic growth in Namibia. The study employed the

Autoregressive Distributed Lag Model (ARDL) and Bounds test for the cointegration approach using time series annual data for the period 1990 – 2018. The variables employed included gross domestic product, deficit financing, government expenditure and current account balance. Focusing on the core explanatory variable which is deficit financing, the empirical results discovered a negative and significant relationship between deficit financing and economic growth both in the short and long run period, implying that high deficit financing deteriorates the growth rate of the economy.

Okolie and Anidiobu (2020) examined the effect of deficit financing on economic growth and development in Nigeria. The study therefore studied deficit financing dynamics in Nigeria using two-fold indices (real GDP and per capita income); as one index approach could compromise complementarity. To achieve this, two specific objectives were assessed: (i) effect of deficit financing (measured by external source of deficit financing (EXSDF) and non-bank source of deficit financing (NBSDF) on real gross domestic product (RGDP); and (ii) impact of EXSDF and NBSDF on per capita income. Annual time series data for 32 years (1986-2018) were obtained from World Development Indicators (WDI), Debt Management Office (DMO) and Central Bank of Nigeria (CBN) Statistical Bulletin. Data stationarity and normal data distribution were achieved using Augmented Dickey-Fuller and descriptive statistics respectively. Ordinary least square estimation was applied. A 5% error tolerance level was permitted. Findings showed (i) EXSDF had a negative and significant impact on real GDP, but NBSDF had a positive and significant impact on real GDP; (b) EXSDF exerted a negative and significant influence on per capita income, but NBSDF exerted a positive and significant influence on per capita income. Economic implication of result was neither that deficit financing improved macroeconomic performance in Nigeria nor stabilized it within review period. This outcome was ascribed to inept fiscal policies that negated budget discipline. In conclusion, deficit financing remained a veritable mechanism for boosting public revenues and accomplishing desired economic objectives. Study recommended government should commit deficit financing solely to productive sectors of the economy and adopt fiscal adjustment mechanism that enhances income generation through improved taxes rather than borrowing to deficits, finance among others.

Awolaja and Esefo (2020) examined the

relationship between deficit financing and economic growth in 20 sub-Saharan Africa countries from 1991 to 2018. Pooled Mean Group (PMG) estimated the variables. Results revealed budget deficit related negatively and significantly with economic growth in the long-run, while budget deficit related positively and significantly with economic growth in the short-run.

3. Methodology

The study adopted quasi-experimental research design to achieve the objectives of the study. The study adopts a generalized linear model developed by Nelder and Wedderburn (1972). The model provides a common approach to a broad range of response modeling problems. Normal, Poisson, and binomial responses are the most commonly used, but other distributions can be used as well. Apart from specifying the response, GLMs also need a link function to be set which allows further flexibility in the modeling. The GLM can be fitted using a common procedure and a mechanism for hypothesis testing is available. Diagnostics using deviance residuals provide a way to check that chosen models are adequate.

The model used in this study was adapted from the work of Adesina and Olatise (2019) who examined the effect of government deficit budget financing on economic growth in Nigeria for a period of 1987-2016. Their model was stated as:

$$GDP = f(EDS, DOM, TRA, EXR)$$
 . (1)

The regression form of the model was specify in a linear form as follows:

GDPt=
$$\beta_0 + \beta_1 EDS_t + \beta_2 DOM_t + \beta_3 TRA_t + \beta_4 EXR_t + \mu_t$$
 (2)

Where:

GDP = Gross Domestic Product;

EDS = External Debt Service Payment;

DOM = Domestic Debt;

TRA = Transfer Payment; and

EXR = External Reserves

 U_t = Error time.

Model (2) was modified to allow for the inclusion of the study variables. Thus, the model is modified as presented below:

GDPt=
$$\beta_0 + \beta_1 MUB_t + \beta_2 BIB_t + \beta_3 ODA_t + \mu$$
 (3)
The double-log form of the model is:

$$\ln G D P_t = \beta_0 + \beta_1 \ln M U B_t + \beta_2 \ln B I B_t + \beta_3 \ln O D A_t + U_t$$
(4)

Where:

GDP = Gross Domestic Product at time t

 $MUB_t = Multilateral Borrowing at time t;$

 $BIB_t = Bilateral Borrowing at time t;$

ODA = Official Development Assistance at time t

 U_t = Error time.

Ln = Logarithm

 β_0 = Constant term

 α , β_1 , β_2 , β_3 , = Parameters

The independent variables are expected to be positive thus signifying a positive relationship with the dependent variable. Thus, β_0 , β_1 , β_2 , $\beta_3 > 0$

4. Results and Discussion

Data collected from the various secondary sources consulted for regression analyses. These include annual time series on the multilateral borrowing (MUB), bilateral borrowing (BIB), and Official development assistance (ODA) on economic growth proxy by gross domestic product (GDP) in Nigeria for the period 1987 to 2022.

Table 1: Augmented Dickey-Fuller (ADF) Test at Level Results

Variable	ADF Test	5%	P-Value	Order of
S	Statistics	Critical Value		Cointegration
GDP	4.315358	-3.544284	1.0000	I(0)
MUB	2.396854	-3.568379	1.0000	I(0)
BIB	10.03608	-3.544284	1.0000	I(0)
ODA	-2.191907	-1.950687	0.6292	I(0)

Source: Author's Computation 2024, using E-view 12.0 version

The unit root test results in table 1 shows that all the variables (GDP, MUB, BIB, and ODA) when tested at level or I(0), have unit root or are not stationary. This is evident by their ADF statistic in absolute term less than

their critical values and having p-values, which are greater than 0.05 level of significance. However, it requires further testing to first difference or I(1).

Table 2: Augmented Dickey-Fuller (ADF) Test at First Difference Results

Variable	ADF Test	5%	P-Value	Order of
S	Statistics	Critical Value		Cointegration
GDP	-3.641342	-3.557759	0.0419	I(1)
MUB	-4.597974	-3.552973	0.0044	I(1)
BIB	-3.906147	-3.562882	0.0238	I(1)
ODA	-6.124498	-3.552973	0.0001	I(1)

Source: Author's Computation 2024, using E-view 12.0 version

The unit root test results in table 4.3 a shows that all the variables (GDP, MUB, BIB, and ODA) when tested at first difference or I(1), have no unit root or are stationary. This is evident by their ADF statistic in absolute term greater than their critical values and

having p-values, which are less than 0.05 level of significance in absolute terms. This shows that the variables have trend order of integration, which makes it suitable for the application of GLM.

Table 3: Johansen co-integration test result

	Trace	0.05			
Eigenvalue	Statistic	Critical	Prob.**		
		Value			
0.940716	220.5545	95.75366	0.0000		
0.832920	124.4906	69.81889	0.0000		
0.629971	63.65505	47.85613	0.0009		
0.484571	29.85310	29.79707	0.0493		
Trace test indicates 4 cointegrating eqn(s) at the 0.05 level					
* denotes rejection of the hypothesis at the 0.05 level					
**MacKinnon-Haug-Michelis (1999) p-values					
	0.940716 0.832920 0.629971 0.484571 ates 4 cointegration of the hypo	Eigenvalue Statistic 0.940716 220.5545 0.832920 124.4906 0.629971 63.65505 0.484571 29.85310 ates 4 cointegrating eqn(s) at ion of the hypothesis at the 0.	Eigenvalue Statistic Critical Value 0.940716 220.5545 95.75366 0.832920 124.4906 69.81889 0.629971 63.65505 47.85613 0.484571 29.85310 29.79707 ates 4 cointegrating eqn(s) at the 0.05 level ion of the hypothesis at the 0.05 level		

Source: Author's Computation 2024, using E-view 12.0 version

An examination of table 3 showed that the Trace-Eigen value statistics shows existence of four unique cointegrating equations between the variables; GDP, MUB, BIB, and ODA at 5 percent level. Thus, it can be concluded that there is long-run relationship between government budget deficit financing and economic growth in Nigeria during the 1987-2022. Since there is

at least four co-integrating equation found in the model, the study concludes that significant long-run relationship exists among the variables. Also, since all the variables were found to be stationary and co-integrated, the study can now perform generalized linear model (GLM) test.

4.1 Regression Results

Presented in table 4 are results of the GLM estimation of the variable's coefficients.

Table 4: GLM Regression Results

Variable	Coefficient	Std. Error	z-Statistic	Prob.
MUB	0.296715	0.173162	1.713516	0.0866
BIB	0.110348	0.076142	1.449241	0.1473
ODA	0.092409	0.022390	4.127177	0.0000
Mean dependentvar	9.734163	S.D. depe	ndent var	1.885150
Sum squared resid	4.244694	Root MSE		0.353333
Log likelihood	-13.07627	Akaike info criterion		1.063310
Schwarz criterion	1.287775	Hannan-Quinn criter.		1.139859
Deviance	4.244694	Deviance statistic		0.146369
Pearson SSR	4.244694	Pearson statistic		0.146369
Dispersion	0.146369			

Source: Author's Computation 2024, using E-view 12.0 version

The long-run regression results obtained are interpreted as follows:

 $GDP_{t} = 0.296715LMUB_{t-1} + 0.110348LBIB_{t-2} + 0.092409LODA_{t-3}$

The results on table 4 revealed the following robust findings: multilateral borrowing (MUB) has positive coefficient 0.296715), indicating positive impact between multilateral borrowing (MUB) and gross domestic product (GDP) in Nigeria, and this is in line with a priori expectation. The coefficient of multilateral borrowing implies that all things being equal proportionately a unit change in MUB, tend to increases the GDP by 29%, respectively, during the period under review.

The coefficient (0.110348) of bilateral borrowing (BIB) is positive, implying positive impact between bilateral borrowing (BIB) and gross domestic product (GDP) in Nigeria and this is in line with a priori expectation. The coefficient of bilateral borrowing (BIB) implies that all things being equal proportionately a unit change in bilateral borrowing tend to increases the GDP by 11%, respectively, during the period under review.

The coefficient (0.092409) of official development assistance (ODA) is positive, implying positive impact between official development assistance (ODA) and gross domestic product (GDP) in Nigeria and this is in line with a priori expectation. The coefficient of official development assistance (ODA) implies that all things being equal proportionately a unit

change in official development assistance (ODA), tend to increases the GDP by 9%, respectively, during the period under review.

The deviance statistic is often used as measure of goodness of fit. It quantifies the difference between the observed data and the data predicted by the model. Lower values of the deviance (0.146369) indicate a better fit of the model to the data.

The Akaike information criterion (AIC) is a measure of the relative quality of a statistical model. It balances the goodness of fit of the model with its complexity (number of parameters). Lower AIC (1.063310) values indicate a better balance between model fit and parsimony.

The pearson statistic, also known as the pearson chi-square statistic, is a measure of the discrepancy between the observed data and the expected values predicted by the GLM. It quantifies the goodness of fit of the model. Lower (0.146369) values indicate a better fit, implying that the model provides a good representation of the data.

Dispersion refers to the measure of the spread or variability of the response variable in the GLM. It is specific to certain types of GLS such as poisson or binomial models. In these models, the dispersion parameter is estimated and represents the ratio of the observed variance to the expected variance. A value close to 1 (0.146369) indicate that the model adequately captyres the variability in the data, while values significantly different from 1 suggest over or underdispersion.

Table 5: Autocorrelation Result

Tuble 2. Hutteeth clutter result				
Breusch-Godfrey Serial Correlation LM Test:				
Null hypothesis: No serial correlation at up to 4 lags				
F-statistic	12.42426	Prob. F(4,25)	0.0636	
Obs*R-squared	22.62070	Prob. Chi-Square(4)	0.0782	

Source: Author's Computation 2024, using E-view 12.0 version

Table 5 presents the serial correlation test result. From the result, it can be observed that the data is free from serial correlation evidence from on the P-value for the test which indicated that the P-value is greater than 0.05% (0.0636). This generally suggests that the data has not collide significantly.

Table 6: Heteroskedasticity Tests Result

Heteroskedasticity Test: Breusch-Pagan-Godfrey				
Null hypothesis: Homoskedasticity				
F-statistic 1.534752		Prob. F(5,30)	0.2089	
Obs*R-squared	7.332832	Prob. Chi-Square(5)	0.1970	
Scaled explained	4.362689	Prob. Chi-Square(5)	0.4985	
SS		_		

Source: Author's Computation 2024, using E-view 12.0 version

Table 6 presents the Heteroskedasticity test result. From the result, it can be observed that the data is Homoscedastic evidence from the P-value of the test which indicated that the P-value is greater than 0.05 (0.2089). This generally suggests that the variance of the residual term, or error term, in a regression model does not vary widely.

4.2 Stability Test Result

The variables stability test result is hereby shown in the figure below:

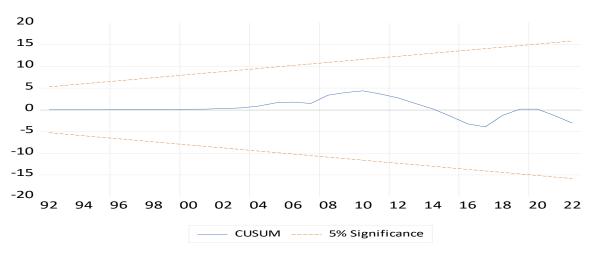


Fig 1: cumulative sum of the recursive residuals (CUSUM)

Source: Author's Compilation 2024, using E-view 12.0 version

The stability test result in figure 1 shows that the cumulative sum of the recursive residuals (CUSUM) lays between the two critical red lines at 5% level of significance. We therefore, reject H₀ of no parameter stability and conclude that the variable's parameters are stable and the model is stable for long-run forecasting. This signifies that the GLM estimates are dynamically and structurally stable, consistent and reliable.

5. Conclusion and Recommendations

The study examined the impact of federal government budget deficit financing on economic growth in Nigeria for the period of 1987 to 2022. Given the result of the unit root test, co-integration, and the GLM model results, it was revealed that the variables are co-integrated at order (1) which justifies the application of GLM model. Consequent to the co-integration result, the model was analysed using the GLM method of analysis. Based on the analysis, the long run regression estimate revealed that all the explanatory variables have positive impact in the long-run analysis and (ODA) variable were statistically significantly impacted gross domestic product in the long-run, while variables such as (MUB and BIB) were statistically insignificantly impact gross domestic product during the period of the

study. Generally, it can be conclude that government budget deficit financing has positive and mixed statistically significant impact on economic growth in Nigeria during the period under review.

The study identified a positive impact between external sources of budget deficit financing (multilateral borrowing, bilateral borrowing and official development assistance) and economic growth, it is recommended that government should be prudent to consider strategic external borrowing. However, caution should be exercised to prevent overreliance on external debt and the associated risks. It is essential to carefully assess borrowing terms, negotiate favourable interest rates, and maintain a manageable debt-to-GDP ratio. Additionally borrowing should be directed towards productive investments that generate long term economic benefits.

It is recommended that government should strengthen fiscal discipline regardless of the financing sources, maintaining fiscal discipline is crucial to sustainable budget deficit financing. This involves prudent expenditure management, effective revenue mobilization measures, and sound fiscal policies. Government should priotize fiscal reforms, including reducing wasteful spending, improving tax

administration, and enhancing budgetary transparency and accountability.

Government should promote economic growth and revenue generation because robust and growing economy can alleviate the burden of budget deficits.

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- Government should focus on implementing policies that promote economic growth, such as investing in infrastructure, education, and innovation. Additionally, efforts to broaden the tax base, combat tax evasion, and improve tax compliance can enhance revenue generation and reduce the need for deficit financing.
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